

DEVAL L. PATRICK GOVERNOR

TIMOTHY P. MURRAY LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD SECRETARY

JOHN AUERBACH COMMISSIONER The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130

Michael Thaler, ADA

Norfolk County District Attorney's Office By e-mail

September 14, 2011

Re: Comm. v.

State Lab nos

# ADA Thaler,

Please find below a discovery package for the case noted above. The material is collated in the following manner:

- 1) the c.v.'s of the chemists
- 2) the Evidence Office receipt to the Milton Police
- 3) the inventory control cards
- 4) the Pharmaceutical Analysis sheets
- 5) the pharmacopeia pages (Micromedex)
- 6) the gas chromatography/mass spectrometry (gc/ms) data

I was the custodial chemist responsible for the chain of custody, weights and the preliminary analysis of the exhibit. Annie Dookhan operated the gc/ms for the confirmatory analysis.

If you need further clarification of this material, call me directly at (617) 983-6627.

Sincerely,

Michael Lawler

Senior Chemist

Cc: A. Dookhan

### Curriculum Vitae

### Michael Lawler

### Education:

University of Virginia, Charlottesville, Va. Bachelor of Arts in English, 1975 Harvard University, Cambridge, Ma. Master of Arts in biology, 1995

# Experience:

1990-present currently Chemist III, Mass. Dept. of Public Health, Drug Lab analyst determining the identity of unknown substances and providing expert testimony in the Courts. Conduct special testing for poisons within drug exhibits. Lab Safety Officer.

2005-2008 lecturer in chemistry, Curry College, Milton, Ma.

1988-1990 New England Newborn Screening (NENS) Biochemist conducting pilot studies and validation trials of new newborn screening tests. Investigator and co-author of papers noted below. Introduced screening test for Biotinidase Deficiency. Liaison with interstate collaborators in national studies.

1983-1988 Supervised NENS urine screening lab for metabolic disorders. Conducted research in collaboration with Children's Hospital (Boston) detecting neuroblastoma, a cancer of early childhood. Conducted reference testing for rare metabolic disorders for an international audience.

1982-1983 NENS hypothyroid assay technologist with Tuft's University

1979-1981 Mass. Bay Community College, staff technologist preparing materials for the laboratory technician program, which included reagents, apparatus and maintaining stock cultures of human pathogens.

# Additional education and special training

Drug Analysis, completed six week training course by senior staff within the

Department of Public Health Drug Analysis Laboratory

National Laboratory Network Training Program course as Expert Witness

Qualified as an expert witness in the Massachusetts Courts and the U.S. District Court

Current Drug Trends – Multijurisdictional Drug Task Force Academy

CDC course in antibiotic resistance CDC course in cell culture

CDC course in public health response to bioterrorism

U.S. Army course in biologic warfare and terrorism

### Journal Publications

<u>Screening</u>, 1992, 1:34-37; Lawler, M., Frederick, S., Rodriguez-Anza, S., Wolf, B., Levy, H., Newborn Screening for Biotinidase Deficiency, Pilot Study and Follow-up of Identified Cases

<u>Genetic Screening</u>, 1990, 11-18, Mitchell, M., Lawler, M., Walraven, C., Hermos, R., To Screen or Not to Screen for Congenital Hyperplasia: Is that the Question?

<u>The Journal of Pediatrics</u>, 116: 78-83, Secor-McVoy, J., Lawler, M., Schmidt, M., Ebers, D., Hart, P., Pettit, D., Blitzer, M., Wolf, B., Partial Biotinidase Deficiency: Clinical and Biochemical Features

# **Professional Affiliations**

Northeastern Association of Forensic Scientists (NEAFS) since 2005

# Awards

Theobald Smith Education Grant for graduate studies

### Curriculum Vitae

# Annie Khan (Dookhan)

#### Education:

University of Massachusetts, Boston, Ma, Master of Science in Chemistry. University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

# Experience:

2003 - present

Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

- \*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.
- \*Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.
- \*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.
- \*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.
- \*Maintenance and repairs of all analytical instruments.
- \*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.
- \* Responsible for the Quality Control/Quality Assurance program for the drug lab.
- \*Notary Public.
- \*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

#### 2001 - 2003

QC Analyst I. II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

- \*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.
- \*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.
- \*Writing, revising and reviewing Standard Operating Procedures (SOPs).
- \*Trained and supervised new chemists and interns for the department.
- \*Routine QC testing of products for the FDA.
- \*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.
- \*Calibration, preventive maintenance, QC and QA of analytical instrumentation.
- \*Complete testing of chemicals for Vendor Validation Project for the FDA.
- \*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

#### Additional Training:

Dept. of Justice - Forensics Professionals. (numerous trainings)

GLP/GMP course with Massachusetts Biologic Laboratory.

QC/QA training according to FDA Codes and Regulations.

GC and GC/MS courses with Agilent Technologies and Restek.

HPLC course with Waters Cooperation.

FTIR course with Spectros.

TOC training with MBL and Sievers.

### Association:

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

# PLEASE PRINT CLEARLY OR TYPE ALL INFORMATION

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
State Laboratory Institute

DRUG RECEIPT

**Boston Drug Laboratory** Tel (617) 983-6622 Fax (617) 983-6625

Amherst Drug Laboratory Tel (413) 545-2601 Fax (413) 545-2608

**Boston Hours** 

Amherst Hours

8:00 - 11:00

9:00-12:00

2:00-4:00	1:00 - 3:00
City or Department: Mi / To )  Name and Rank of Submitting Officer: Let fair,	Police Reference No.:
Defendant(s) Name (last, first, initial):	
To be completed by Submitter  Description of Items Submitted	To be completed by Lab Personnel Gross Weight Lab Number
15 light blue pills marked w HI and 130. 8-2/2 purple pills marked w 48/12-y	3,23 grc A 3.08 gr
Received by:	Date: 5.4.1/

Mo. Date Analyzeb: O7-12-11
City: Milton Police Dept.
Officer: Detective Panela Digiovanni

Def:
Amount: 25 Subst: TAB
No. Cont: 1 Cont: PB

Date Rec'd: 85/84/2011 No. Analyzed:

GROSS WT: 5.230 NET WT: 3.15

ونو

PRELIM: DXYCGOOR FINDINGS: OUGODOR

No. DATE ANALYZED: O7-12-11
CITY: MILTON POLICE DEPT.
OFFICER: DETECTIVE PAMELA DISIOVANNI

DEF: 8 SUBST: TABLET/BRK
NO. CONT: 1 CONT: PB

DATE REC'D: 05/04/2011 No. ANALYZED:

GROSS WT: 3.080 NET WT: 019

PRELIM: OXYGO CONFINDINGS: 04,00000

NO. DATE ANALYZED: O7-12-11
CITY: MILTON POLICE DEPT.
OFFICER: DETECTIVE PAMELA DIGIOVANNI

DEF:
AMOUNT: 6 SUBST: TAB
NO. CONT: 1 CONT: PB

DATE REC'D: Ø5/Ø4/2Ø11 No. ANALYZED:

GROSS WT: 2.680 NET WT: 0,615 #TESTS: 1. N.

PRELIM: OXYCHOR FINDINGS: Oxycodone

Sample #_	ciry Milton	_ E.O. weight <u> </u>	
Count 25 tablets Description	on:	ket = 3,151	12
Ballistic I.D OXYCN dire	$\sqrt[3]{M}$	1+2/	
I.D. Source Micromede	x blue.	Mailt	-> 91/m3
Final 1.D. Xyandre N	1S chemis ASP cor	112011 npleted 7-12-11	
	1 01		
Sample #	City Julian	E.O. weight $\frac{3}{100}$	182
Count Sintact tab Description	tabi) A	-\ not=(	19104
Ballistic I.D. Oxycodule 30	215	) 1 tab	
1.D. Source Micropedex	blu		- 5 ge/ms
Final I.D. Coyed done MS	S chemist ASD com	pieted	
	• •		
	Pharmaceutical Analysis Shee		11-61
			0.
Sample #_	city Mi Jon	E.O. weight $\frac{2}{4}$	<u>68</u> 13 1
Count O. Descri	ption:	net - 0.0	1369
Ballistic I.D. OXY COCONE	30 (48/12)	(V)	5.5 tablet
1.D. Source Microped	ex bhr		hell ym
Final LD. XUCNAME	MS chemist AD	completed 7-0	12-11

# Drug Information

DRUG NAME: OXYCODONE HYDROCHLORIDE

INGREDIENTS: OXYCODONE HYDROCHLORIDE -- 30 MG

Color: Light Blue Shape: Circle

Imprint:  $\,_{\text{M}}$  The M enclosed in a box is imprinted on one side and 30 above the score is imprinted on the reverse side. ,  $_{\text{M30}}$  The M enclosed in a box is imprinted on one side and 30 above the score is imprinted on the reverse side. ,  $_{\text{30}}$  ,  $_{\text{M}}$ 

30

Form: Oral Tablet

Available-Container-Size: Bottle of

100

AAPCC Code: 037705 - Oxycodone Alone or in Combination (Excluding

Combination Products with

Acetaminophen or Acetylsalicylic Acid)

NDC: 0406-8530-01

Excipients: Cellulose,

Microcrystalline; Sodium Starch

Glycolate; Starch,

Corn; Lactose; Stearic Acid; FD&C

Blue No. 2

Regulatory Status: Schedule II

Availability: United States

Product ID 6594281

Contact: Covidien Mallinckrodt

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# Drug Information

DRUG NAME: OXYCODONE HYDROCHLORIDE

INGREDIENTS: OXYCODONE HYDROCHLORIDE -- 30 MG

Color: Blue

Shape: Circle

Imprint: A; 215

Form: Oral Tablet

Available-Container-Size: Bottle of

100,10X10

AAPCC Code: 037705 - Oxycodone Alone or in Combination (Excluding

Combination Products with

Acetaminophen or Acetylsalicylic Acid)

NDC: 52152-0215-02

52152-0215-11

Excipients: Starch, Corn; FD&C Blue

No. 2 Aluminum Lake; Lactose (Monohydrate); Cellulose, Microcrystalline; Silicon Dioxide; Sodium Starch Glycolate; Stearic Acid

Regulatory Status: Schedule II

Availability: United States

Product ID 6527175

Contact: Actavis Totowa

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# Drug Information

DRUG NAME: OXYCODONE HYDROCHLORIDE

INGREDIENTS: OXYCODONE HYDROCHLORIDE -- 30 MG

Color: Light Blue

Shape: Circle

Imprint: 4812 The tablet is debossed with 4812 on one side and V on the

reverse side., v

Form: Oral Tablet

Available-Container-Size: Bottle of 500, Bottle of 100, Bottle of 10, Bottle

of 1000

AAPCC Code: 037705 - Oxycodone Alone or in Combination (Excluding

Combination Products with

Acetaminophen or Acetylsalicylic Acid)

NDC: 00603-4992-28 00603-4992-21

UPC: 06034-99228

Excipients: FD&C Blue No. 1 Aluminum Lake; Lactose (Monohydrate); Magnesium

Stearate; Cellulose,

Microcrystalline ; Povidone ; Sodium Starch Glycolate ; Stearic Acid

Regulatory Status: Schedule II

Availability: United States

Product ID 7093498

Contact: Qualitest Pharmaceuticals

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File Name : C:\msdchem\1\System7\07\_11\_11\795305.D

Operator : ASD

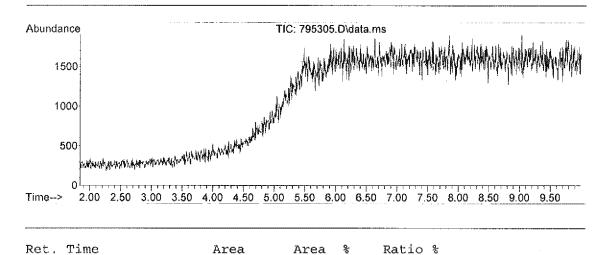
Date Acquired : 11 Jul 2011 15:13

Sample Name : BLANK

Submitted by

Vial Number :

AcquisitionMeth: DRUGS.M Integrator : RTE



File Name : C:\msdchem\1\System7\07\_11\_11\795306.D

Operator : ASD

Date Acquired : 11 Jul 2011 15:26

Sample Name

: OXYCODONE STD

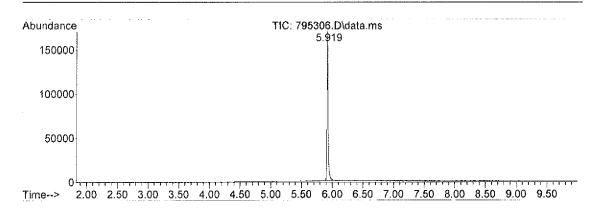
Submitted by

Vial Number :

6 AcquisitionMeth: DRUGS.M

Integrator

: RTE



Ret. Time	Area	Area %	Ratio %
5.919		100.00	

Information from Data File: File Name : C:\msdchem\1\System7\07 11 11\795306.D Operator : ASD Date Acquired : 11 Jul 2011 15:26 : OXYCODONE STD Sample Name Submitted by Vial Number 6 AcquisitionMeth: DRUGS.M Integrator RTE Search Libraries: C:\Database\SLI.L Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 80 C:\Database\PMW TOX2.L PK# Library/ID CAS# Qual 1 5.92 C:\Database\NIST05a.L Morphinan-6-one, 4,5-epoxy-14-hydro 000076-42-6 99 Morphinan-6-one, 4,5-epoxy-14-hydro 000076-42-6 99 Morphinan-6-one, 4,5-epoxy-14-hydro 000076-42-6 99 Abundance Average of 5.882 to 6.062 min.: 795306.D\data.ms (-) 315 80 60 42 230 70 40 115 140 201 20 55 128 258 98 272 286 300 244 40 60 120 220 260 m/z--> 80 100 140 160 180 200 240 280 Abundance #134019: Morphinan-6-one, 4,5-epoxy-14-hydroxy-3-methoxy-17-methyl-, (5.alpha.)-315 80 60 230 40 201 140 70 258 20 187 217 128 157 272 286 300

m/z-->

40

60

100

120

140

160

180

200

80

280

260

300

240

220

ASD

Information from Data File:

File Name : C:\msdchem\1\System7\07\_11\_11\795307.D

Operator : ASD

Date Acquired : 11 Jul 2011 15:39

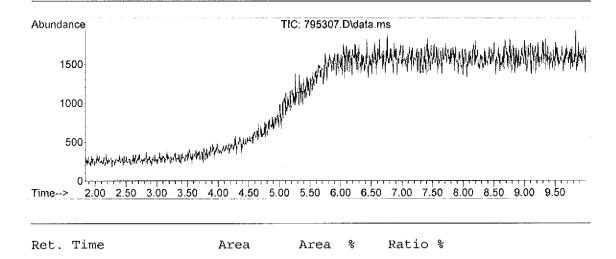
Sample Name : BLANK

Submitted by

Vial Number

AcquisitionMeth: DRUGS.M

Integrator : RTE



<sup>\*\*\*</sup>NO INTEGRATED PEAKS\*\*\*

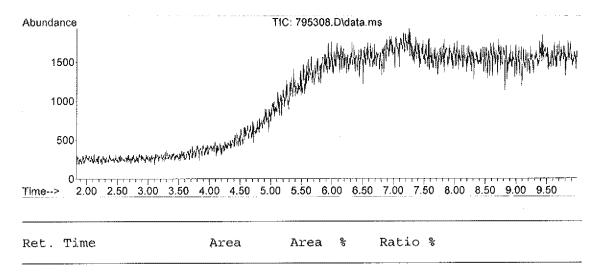
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Operator : ASD

Date Acquired : 11 Jul 2011 15:51

Sample Name : BLANK
Submitted by : MGL
Vial Number : 1
AcquisitionMeth: DRUGS.M
Integrator : RTE





File Name : C:\msdchem\1\System7\07\_11\_11\795309.D

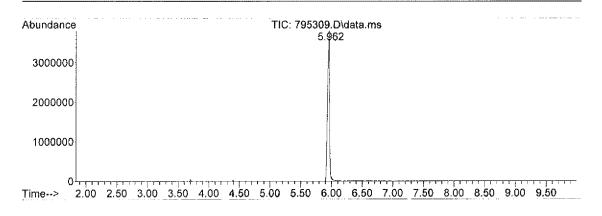
Operator : ASD

Date Acquired : 11 Jul 2011 16:04

Sample Name : Submitted by : MGL Vial Number : 9

Vial Number : 9
AcquisitionMeth: DRUGS.M
Integrator : RTE





Ret. Time	Area	Area %	Ratio %
5.962	9083769	100.00	100.00

File Name : C:\msdchem\1\System7\07\_11\_11\795309.D

Operator : ASD

Date Acquired : 11 Jul 2011 16:04

Sample Name : MGL

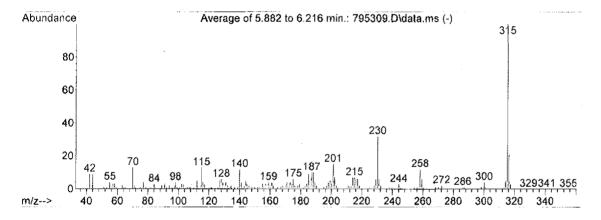
Vial Number : 9
AcquisitionMeth: DRUGS.M
Integrator : RTE

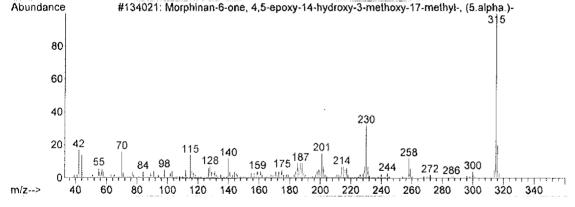
Search Libraries: C:\Database\SLI.L Minimum Quality: 80

C:\Database\NIST05a.L Minimum Quality: 80

C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID		CAS#	Qual
1	5.96	C:\Database\NISTO	5a.L		
		Morphinan-6-one,	4,5-epoxy-14-hydro	000076-42-6	99
		Morphinan-6-one,	4,5-epoxy-14-hydro	000076-42-6	99
		Morphinan-6-one,	4,5-epoxy-14-hydro	000076-42-6	99



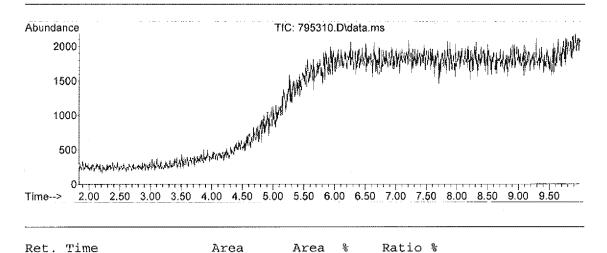


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Operator : ASD

Date Acquired : 11 Jul 2011 16:17

Sample Name : BLANK
Submitted by : MGL
Vial Number : 1
AcquisitionMeth: DRUGS.M
Integrator : RTE



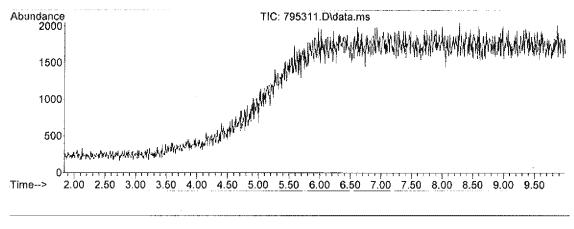
File Name : C:\msdchem\1\System7\07 11 11\795311.D

Operator : ASD

Date Acquired : 11 Jul 2011 16:29

Sample Name : BLANK
Submitted by : MGL
Vial Number : 1
AcquisitionMeth: DRUGS.M
Integrator : RTE





Ret. Time

Area

Area %

Ratio %

File Name : C:\msdchem\1\System7\07 11 11\795312.D

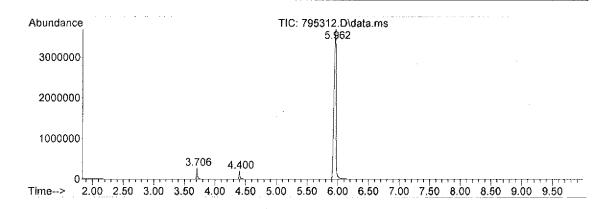
Operator : ASD

Date Acquired : 11 Jul 2011 16:42

Sample Name Submitted by

: MGL 12

Vial Number AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %
3.706	276192	2.95	3.12
4,400	240384	2,56	2.71
5.962	8861389	94.49	100.00

File Name : C:\msdchem\1\System7\07 11 11\795312.D

Operator : ASD

Date Acquired : 11 Jul 2011 16:42

Sample Name :
Submitted by : MGL
Vial Number : 12
AcquisitionMeth: DRUGS.M
Integrator : RTE

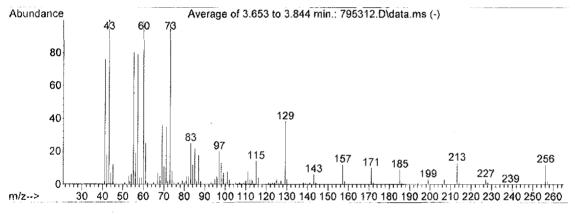


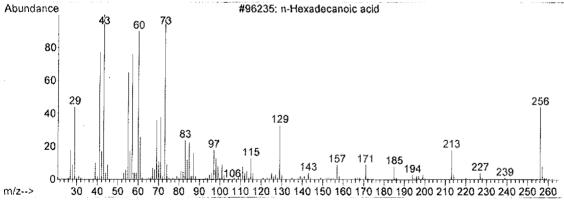
Search Libraries: C:\Database\SLI.L Minimum Quality: 80

C:\Database\NIST05a.L Minimum Quality: 80

C:\Database\PMW TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	3.71	C:\Database\NIST05a.L n-Hexadecanoic acid n-Hexadecanoic acid Tetradecanoic acid	000057-10-3 000057-10-3 000544-63-8	99 97 94





File Name : C:\msdchem\1\System7\07\_11\_11\795312.D

Operator : ASD

Date Acquired : 11 Jul 2011 16:42

Sample Name Submitted by : MGL Vial Number 12 AcquisitionMeth: DRUGS.M : RTE Integrator

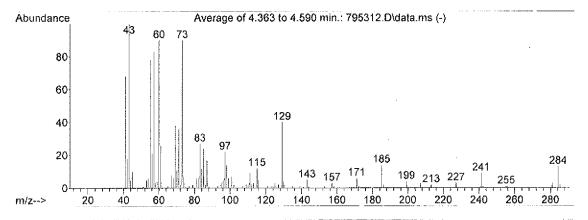


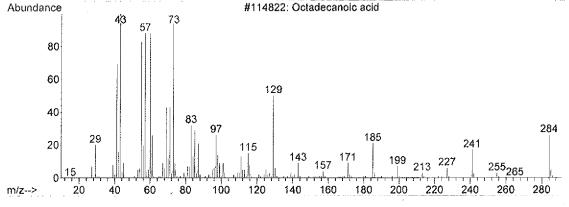
C:\Database\SLI.L Search Libraries: Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST05a.L

C:\Database\PMW TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	4,40	C:\Database\NIST05a.L Octadecanoic acid Octadecanoic acid Octadecanoic acid	000057-11-4 000057-11-4 000057-11-4	99 95 95





File Name : C:\msdchem\1\System7\07\_11\_11\795312.D

Operator ASD

Date Acquired 11 Jul 2011 16:42

Sample Name Submitted by MGL

Vial Number 12 AcquisitionMeth: DRUGS.M Integrator : RTE

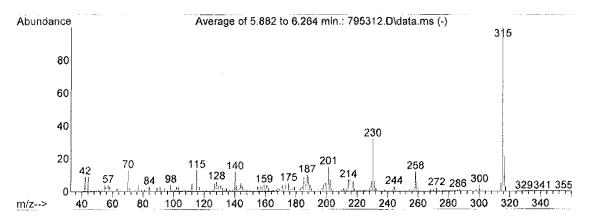


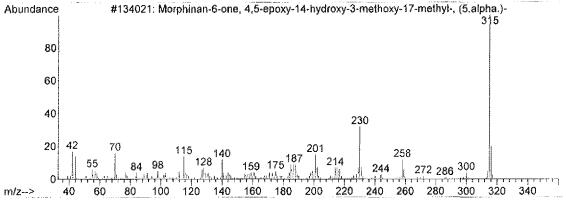
Search Libraries: C:\Database\SLI.L Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST05a.L

C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID		CAS#	Qual
 3	5.96	C:\Database\NISTO	5a.L		
		Morphinan-6-one,	4,5-epoxy-14-hydro	000076-42-6	99
		Morphinan-6-one,	4,5-epoxy-14-hydro	000076-42-6	99
		Morphinan-6-one,	4,5-epoxy-14-hydro	000076-42-6	99





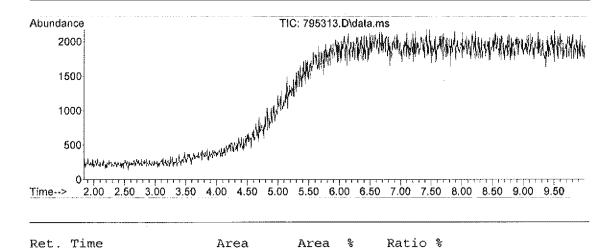
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Operator : ASD

Date Acquired : 11 Jul 2011 16:54

Sample Name : BLANK Submitted by : MGL Vial Number 1 AcquisitionMeth: DRUGS.M

Integrator : RTE



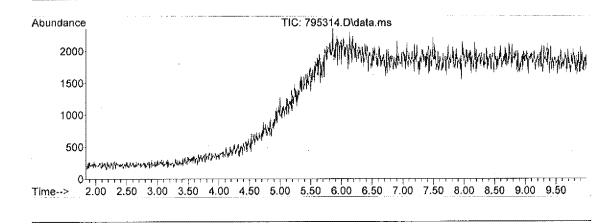
File Name : C:\msdchem\1\System7\07\_11\_11\795314.D

Operator : ASD

Date Acquired : 11 Jul 2011 17:07

Sample Name : BLANK
Submitted by : MGL
Vial Number : 1
AcquisitionMeth: DRUGS.M
Integrator : RTE





Ret. Time

Area

Area

Ratio %

File Name : C:\msdchem\1\System7\07 11 11\795315.D

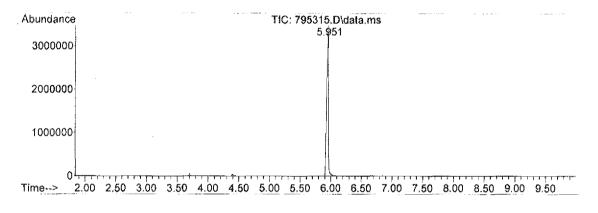
Operator : ASD

Date Acquired : 11 Jul 2011 17:20

Sample Name Submitted by : MGL Vial Number 15

AcquisitionMeth: DRUGS.M Integrator : RTE





Ret. Time	Area		Ratio %
5.951	-	100.00	

File Name : C:\msdchem\1\System7\07\_11\_11\795315.D

Operator : ASD

Date Acquired 11 Jul 2011 17:20

Sample Name Submitted by

MGL Vial Number 15 AcquisitionMeth: DRUGS.M Integrator : RTE

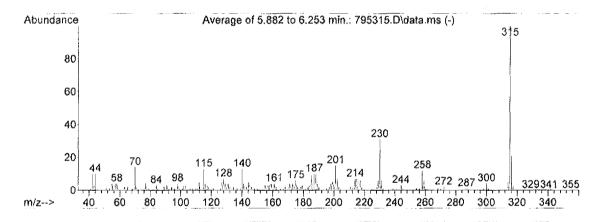


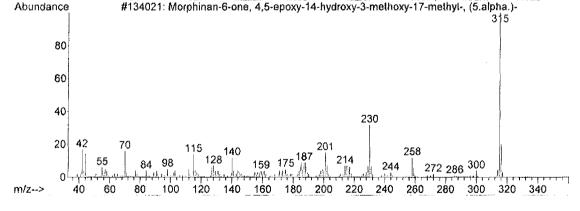
Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 80

C:\Database\PMW TOX2.L

PK#	RT	Library/ID		CAS#	Qual
1	5.95	Morphinan-6-one,	5a.L 4,5-epoxy-14-hydro 4,5-epoxy-14-hydro 4,5-epoxy-14-hydro	000076-42-6	99 99 99





# Area Percent / Library Search Report

Information from Data File:

File Name : C:\msdchem\1\System7\07\_11\_11\795335.D

Operator : ASD

Date Acquired : 11 Jul 2011 21:33

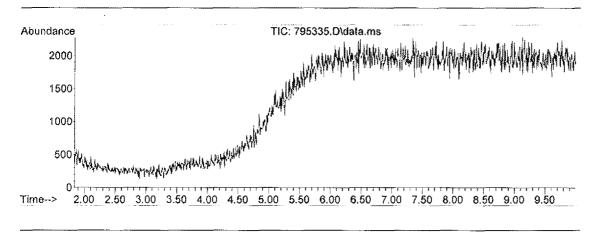
Sample Name : BLANK

Submitted by

Vial Number : 2

AcquisitionMeth: DRUGS.M

Integrator : RTE



Ret. Time

Area

Area

Ratio %

File Name : C:\msdchem\1\System7\07\_11\_11\795336.D

Operator : ASD

Date Acquired : 11 Jul 2011 21:46

Sample Name : OXYCODONE STD

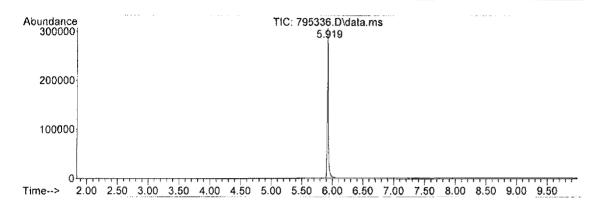
Submitted by

Vial Number : 6

AcquisitionMeth: DRUGS.M

Integrator : RTE





Ret. Time	Area	Area %	Ratio %	
5.919	395356	100.00	100.00	

File Name : C:\msdchem\1\System7\07\_11\_11\795336.D

Operator : ASD

Integrator

Date Acquired : 11 Jul 2011 21:46

Sample Name : OXYCODONE STD

Submitted by : Vial Number : 6 AcquisitionMeth: DRUGS.M PEC

Search Libraries: C:\Database\SLI.L

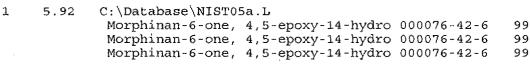
: RTE

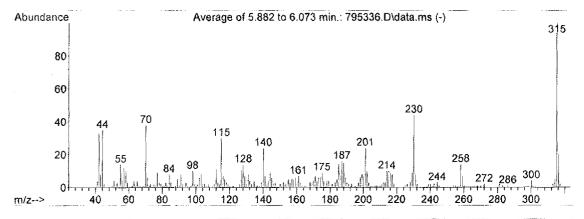
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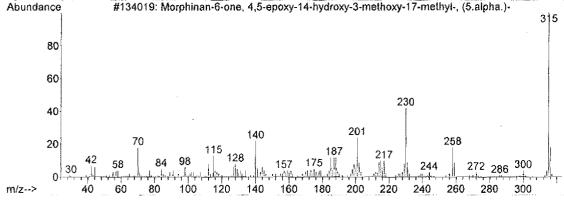
C:\Database\PMW\_TOX2.L

PK# RT Library/ID CAS# Qual

1 5.92 C:\Database\NIST05a.L







File Name : C:\msdchem\1\System7\07\_11\_11\795337.D

Operator : ASD

Date Acquired : 11 Jul 2011 21:58

Sample Name : BLANK

Submitted by

Vial Number : 2

AcquisitionMeth: DRUGS.M

Integrator : RTE



